PROPER TERMINATION OF

KRAMER DGKAT™ CABLES

Tom Kopin – CTS, ISF-C

JANUARY 2013

KRAMER WHITE PAPER

WWW.KRAMERUS.COM

TABLE OF CONTENTS

Introduction

Kramer DGKat™ twisted pair cable is ideally suited to extend digital video signals with twisted pair transmitters and receivers. In Pro AV applications it impossible to predict the environment so it is best to always use shielded twisted pair cables. It is important to always use Kramer RJ-45 connectors with Kramer twisted pair cable as they are engineered to work with Kramer DGKat cable.

White there may be different ways to terminate twisted pair cables, Kramer has found the following method to be considered a best practice and it is a requirement for use with certain Kramer products in order for them to function to their maximum specifications.

Tools Required

» Razor knife

» Wire cutters

» Pliers

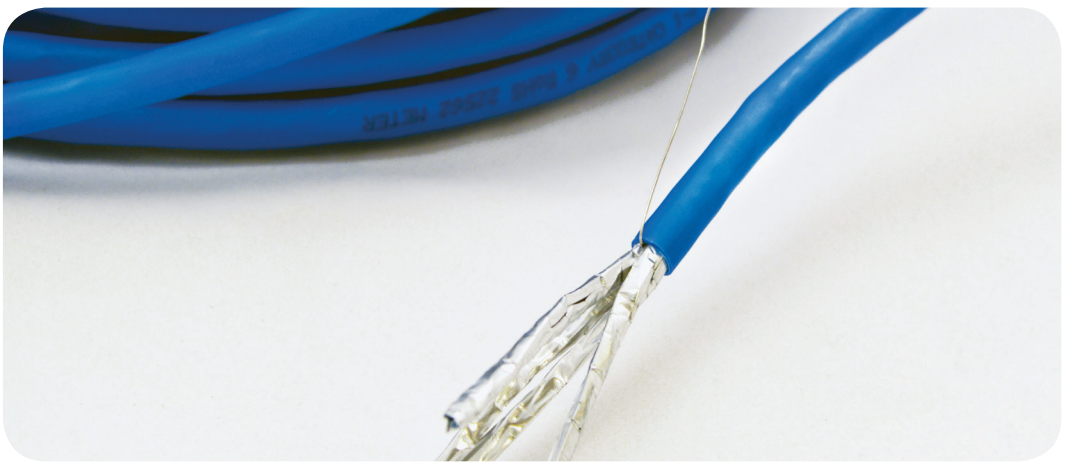
» Standard RJ-45 crimp tool

» Soldering Iron

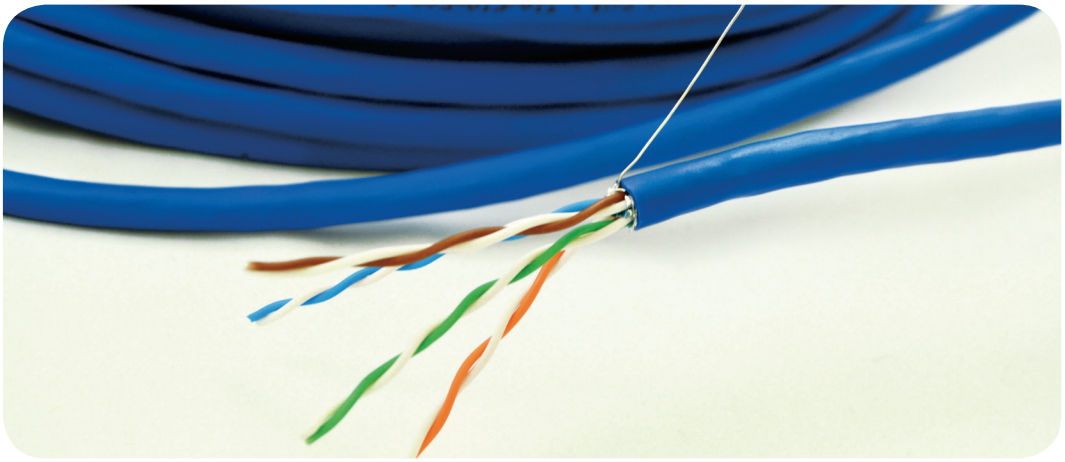
» Solder

Procedure

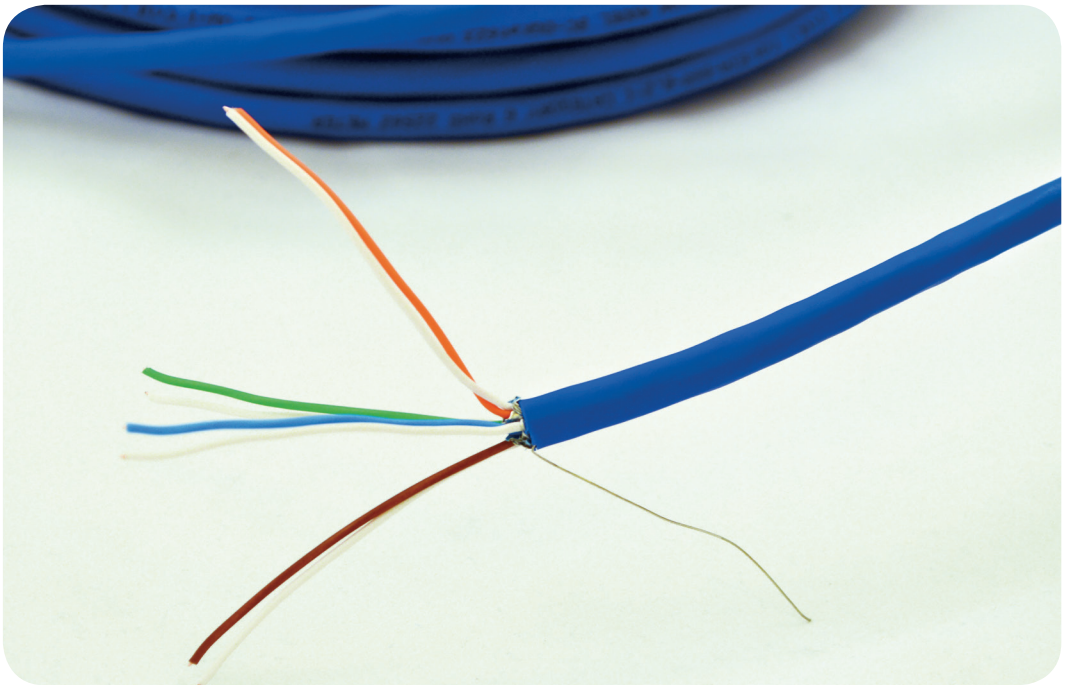
Step 1: Remove approximately 2.5" of the jacket using the razor knife exposing the 4 shielded pairs and drain wire. Fold the drain wire over onto the cable for future use.



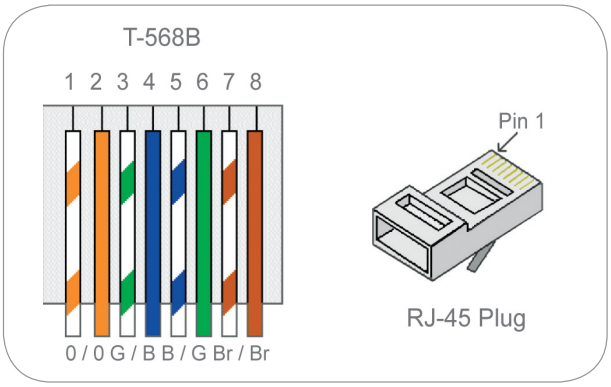
Step 2: Separate the 4 Pairs. Again using the razor knife, carefully remove the shielding without scoring the wires beneath it. Repeat for all 4 pairs.

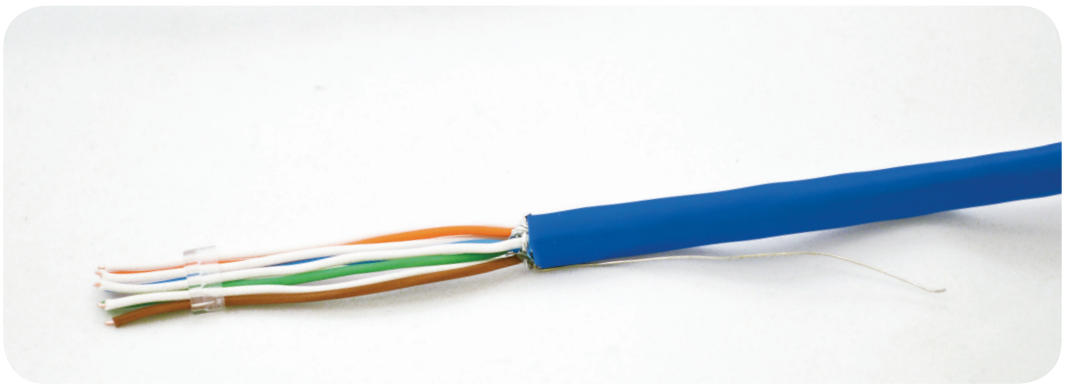


Step 3: Un-twist each pair and straighten the individual conductors. Be sure to keep each pair together so it can be identified.

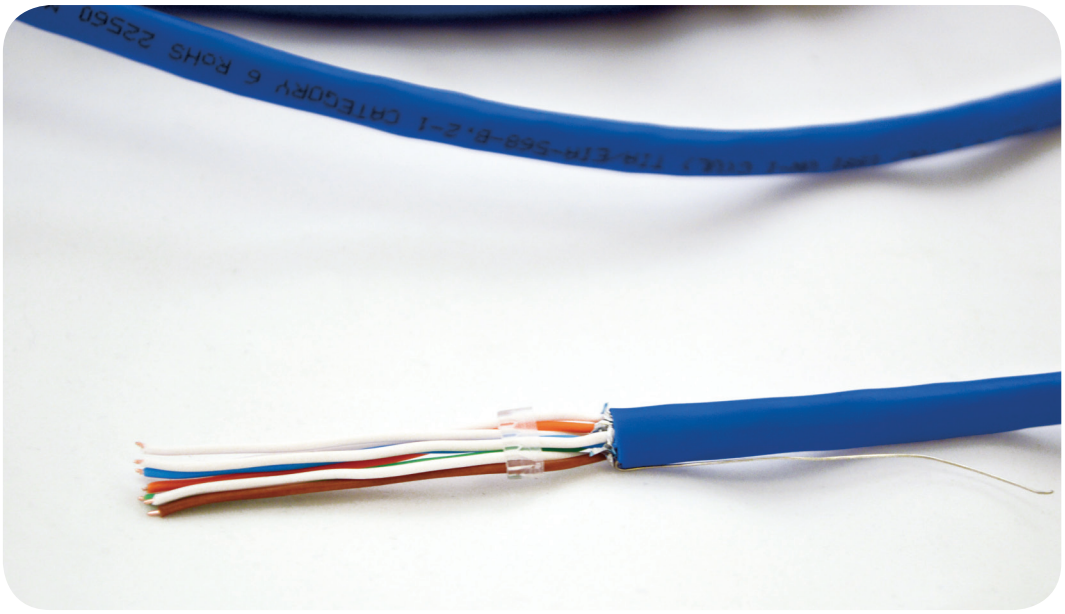


Step 4: Using the standard wiring scheme shown below (T568B), insert conductors into plastic loader piece of the RJ45 connector. The plastic loader is necessary because the thickness of the Cat6 cable does not allow it to sit flat in a RJ-45 like in normal CAT5. Notice how the loader staggers the cables in the pictures below.

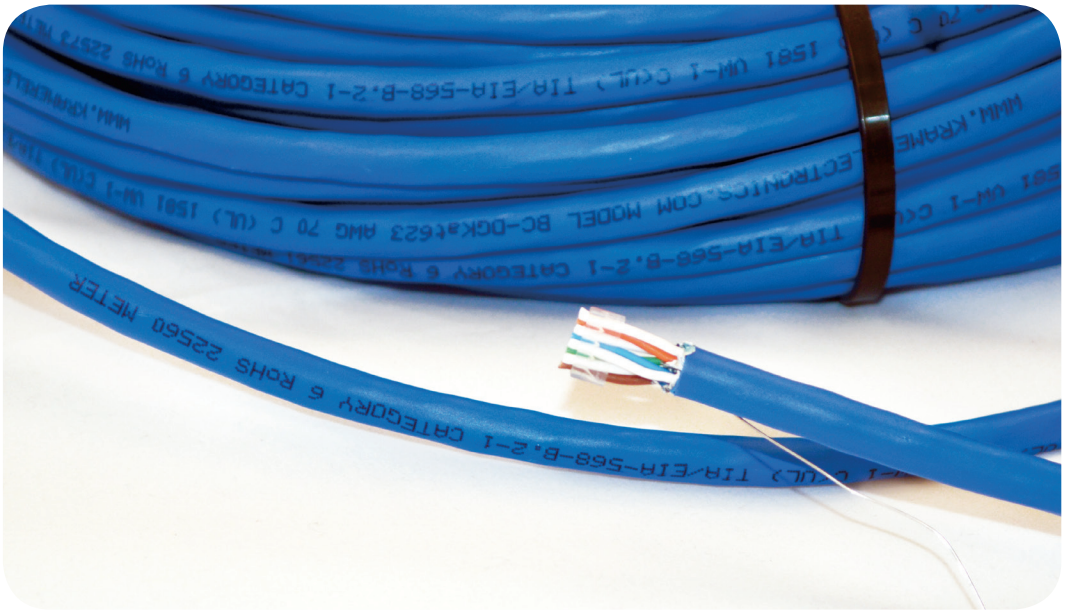




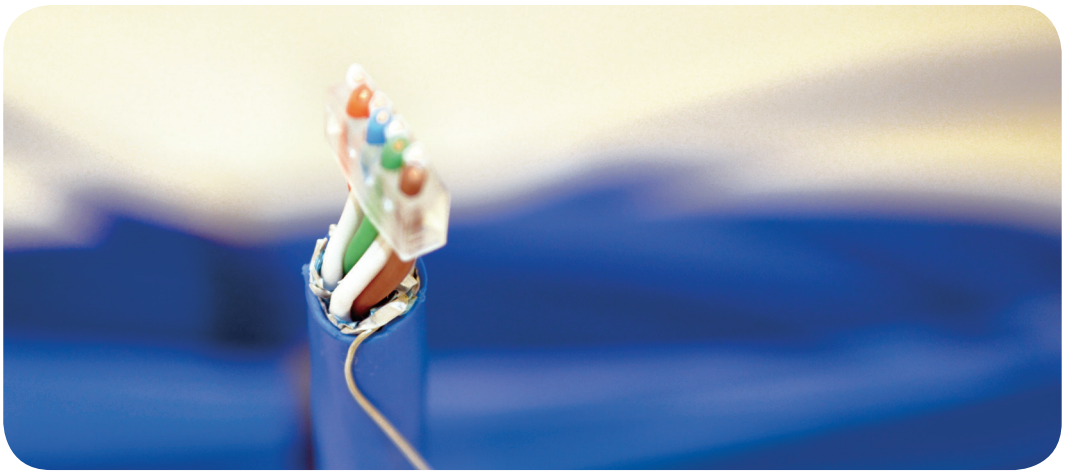
Step 5: Slide the plastic loader down the cable as close to the base as possible. Keep pressure on the top and bottom of the loader so cables stay in place while sliding down.



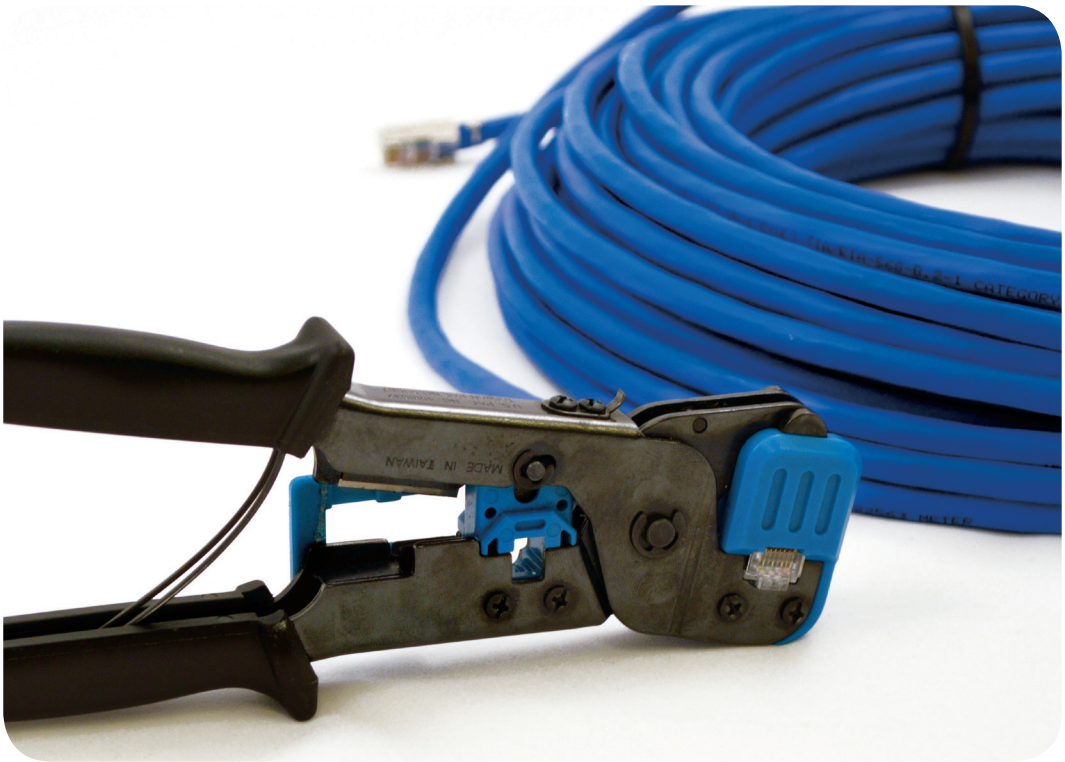
Step 6: Using the wire cutters, cut all conductors leaving approximately ½ an inch remaining.



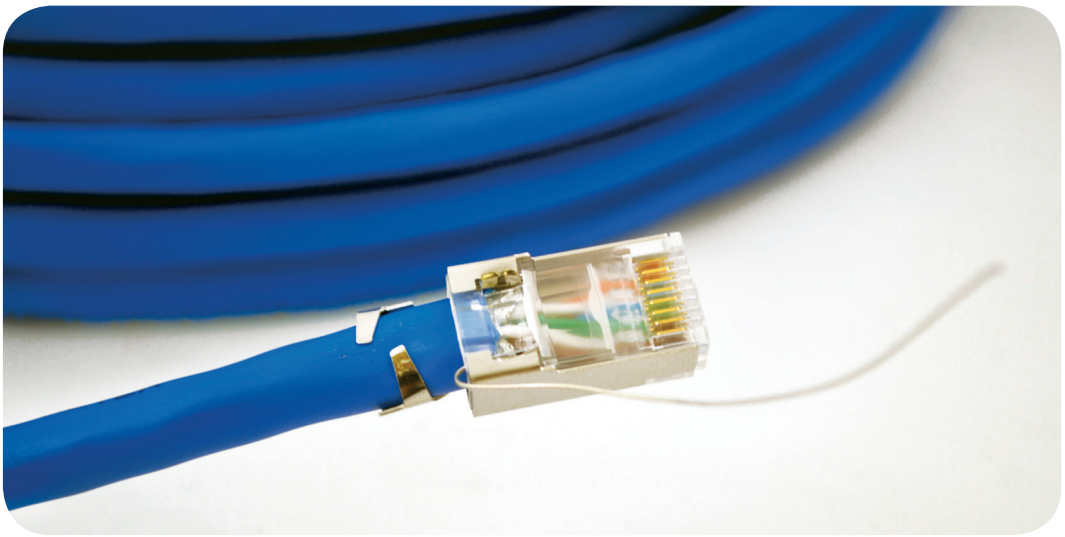
Step 7: With the orange pair on the left and the clip of the RJ45 connector facing down, insert the cable into the RJ45 connector, pushing the cable all the way in until the exposed pairs contact the back of the connector.



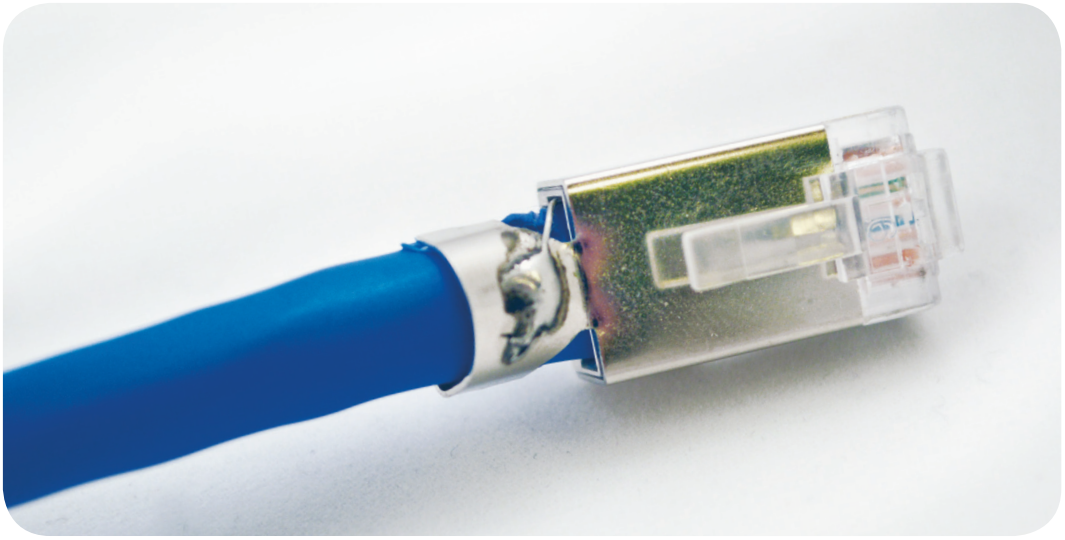
Step 8: Using the standard crimp tool, crimp the RJ45 connector.



Step 9: Flip the drain wire up onto the RJ45 connector. Clamp the strain relief down on the jacket of the DGKat cable using pliers.



Step 10: Solder the drain wire to the metal casing of the RJ45 connector and cut off the excess using the wire cutters.



Step 11: To verify continuity of the conductors and the shield use a cable tester like the one shown below.

KRAMER ELECTRONICS, Ltd.
3 Am VeOlamo St.
Jerusalem, Israel, 95463
Tel: + 972 732650200
Fax: + 972 2 653 5369
E-mail: info@kramerel.com
Web: www.kramerelectronics.com

KRAMER ELECTRONICS USA, INC.
HEADQUARTERS
96 Route 173 West Suite 1
Hampton, NJ 08827
Tel: (908) 735 0018
(888) 275 6311
Fax: (908) 735 0515

TECH SUPPORT AFTER 6PM EST:
Tel: (888) 275 6311
E-mail: info@kramerus.com
Web: www.kramermatrix.com